

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A method comprising:

determining a protocol of an ad hoc service discovery request received from a client via a home proximity network;

translating the protocol of the ad hoc service discovery request into a service discovery protocol used by an Internet-located service registry by way of a generic service discovery format, the translated service discovery request being used to discover an Internet service provider of the service requested, wherein translating the protocol of the ad hoc service discovery request into a service discovery protocol used by the Internet-located service registry comprises translating the ad hoc service discovery request via a canonical query transform service operating on the home proximity network that interacts with clients to allow generic service discovery queries to be translated and subsequently issued via specific service discovery protocols;

detecting incompatibilities between the client and the service provider; and

translating the service provided to the client by the service provider in response to the detected incompatibilities.

2. (Previously presented) The method according to Claim 1, wherein translating the protocol includes selecting one of a plurality of service discovery interfaces that are compatible with the Internet-located service registry.

3. (Canceled)

4. (Original) The method according to Claim 1, wherein detecting the incompatibilities comprises analyzing session descriptions contained within Session Initiation Protocol (SIP) messages exchanged between the client and the service provider.

5. (Original) The method according to Claim 4, wherein the session descriptions transmitted by the client reflect the capabilities of the client.

6. (Original) The method according to Claim 5, wherein the capabilities of the client include media session capabilities.

7. (Original) The method according to Claim 6, wherein the session descriptions transmitted by the service provider reflect the capabilities of the service provider.

8. (Original) The method according to Claim 7, wherein the capabilities of the service provider include media session capabilities.

9. (Original) The method according to Claim 8, wherein translating the service provided comprises translating media received from the service provider into a format compatible with the media session capabilities of the client.

10. (Original) The method according to Claim 4, wherein translating the service provided comprises:

- modifying the session descriptions received from the client to match the session descriptions received from the service provider; and
- transmitting the modified session descriptions to the service provider.

11. (Original) The method according to Claim 10, wherein translating the service provided further comprises:

- modifying the session descriptions received from the service provider to match the session descriptions received from the client; and
- transmitting the modified session descriptions to the client.

12. (Original) The method according to Claim 4, wherein translating the service provided comprises:

receiving messages from the service provider using a first transport protocol; and  
transmitting the messages received from the service provider to the client using a second transport protocol.

13. (Original) The method according to Claim 12, wherein translating the service provided comprises:

receiving messages from the client using the second transport protocol; and  
transmitting the messages received from the client to the service provider using the first transport protocol.

14. (Currently amended) A system, comprising:

a service requestor coupled to a home proximity network and configured to submit a service request using a first ad hoc service discovery protocol;

a service translation proxy coupled to the home proximity network and configured to:  
translate the first ad hoc service discovery protocol of the service request into a second ad hoc service discovery protocol by way of a generic service discovery format, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry, wherein translating the service request from the first ad hoc service discovery protocol to the second ad hoc service discovery protocol by way of the generic service discovery format comprises translating the service request via a canonical query transform service operating on the service translation proxy that interacts with clients to allow generic service discovery queries to be translated and subsequently issued via specific service discovery protocols;

discover an Internet based service provider using the Internet located service registry, wherein the service provider is configured to provide the service requested; and  
translate the service provided into a format that is compatible with the service requestor.

15-16. (Canceled)

17. (Currently amended) An apparatus, comprising:

means for receiving a service request from a service requestor via a home proximity network;

means for translating the service request from a first ad hoc service discovery protocol to a second ad hoc service discovery protocol by way of a generic service discovery format, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry, wherein translating the service request from the first ad hoc service discovery protocol to the second ad hoc service discovery protocol by way of the generic service discovery format comprises translating the service request via a canonical query transform service operating on the apparatus that interacts with clients to allow generic service discovery queries to be translated and subsequently issued via specific service discovery protocols;

means for locating a service provider to provide the service requested using the second ad hoc service discovery protocol; and

means for translating the service provided into a format that is compatible with capability information associated with the service requestor.

18. (Previously presented) The apparatus according to Claim 17, further comprising:

means for receiving the service provided using a first transport protocol; and

means for providing the service provided using a second transport protocol.

19. (Currently amended) A computer-readable medium having instructions stored thereon which are executable by an apparatus to perform:

receiving a service request from a service requestor via a home proximity network;

translating the service request from a first service ad hoc discovery protocol to a second ad hoc service discovery protocol by way of a generic service discovery format, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry, wherein translating the service request from the first ad hoc service discovery protocol to the second ad hoc service discovery protocol by way of the generic service discovery format comprises translating the service request via a canonical query transform service operating on

the apparatus that interacts with clients to allow generic service discovery queries to be translated and subsequently issued via specific service discovery protocols;

locating a service provider to provide the service requested using the second ad hoc service discovery protocol; and

translating the service provided into a format that is compatible with capability information associated with the service requestor.

20. (Previously presented) The computer-readable medium according to Claim 19, wherein locating a service provider comprises issuing the translated service request to the Internet-located service registry.

21. (Original) The computer-readable medium according to Claim 19, wherein locating a service provider comprises forwarding the service request to another service translation proxy located within the network.

22-27 (Canceled)

28. (Currently amended) An apparatus comprising:

a network interface capable of communicating with a service requestor via a home proximity network using a first ad hoc service discovery protocol and at least one Internet service provider via a second ad hoc service discovery protocol, wherein at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry;

a processor coupled to the network interface and configured with instructions that cause the apparatus to:

receive a service request from the service requestor;

translate the service request from the first ad hoc service discovery protocol to the second ad hoc service discovery protocol by way of a generic service discovery format, wherein translating the service request from the first ad hoc service discovery protocol to the second ad hoc service discovery protocol by way of the generic service discovery format comprises translating the service request via a canonical query

transform service operating on the apparatus that interacts with clients to allow generic service discovery queries to be translated and subsequently issued via specific service discovery protocols;

locate the service provider to provide the service requested via the second ad hoc service discovery protocol; and

translate the service provided into a format that is compatible with capability information associated with the service requestor as determined by the first and second ad hoc service discovery protocols.

29. (Previously presented) The apparatus according to Claim 28, wherein locating the service provider comprises issuing the translated service request to the Internet-located service registry.

30. (Previously presented) The apparatus according to Claim 28, wherein translating the service provided comprises analyzing session descriptions contained within Session Initiation Protocol (SIP) messages exchanged between the service requestor and the service provider.

31. (Previously presented) The apparatus according to Claim 28, wherein translating the service provided comprises:

receiving messages from the service provider using a first transport protocol; and

transmitting the messages received from the service provider to the service requestor using a second transport protocol.

32. (Canceled).

33. (Previously presented) The computer-readable medium according to Claim 19, wherein translating the service request from the first service ad hoc discovery protocol to the second ad hoc service discovery protocol by way of the generic service discovery format comprises translating the service request via a canonical query transform service operating on the apparatus that interacts with clients to allow generic service discovery queries to be translated and subsequently issued via specific service discovery protocols.

34. (Canceled).

35. (Previously presented) The method according to Claim 1, wherein the Internet-located service registry comprises a universal description, discovery, and integration registry.

36. (Previously presented) The system according to Claim 14, wherein the Internet-located service registry comprises a universal description, discovery, and integration registry.

37. (Previously presented) The apparatus according to Claim 17, wherein the Internet-located service registry comprises a universal description, discovery, and integration registry.

38. (Previously presented) The computer-readable medium according to Claim 19, wherein the Internet-located service registry comprises a universal description, discovery, and integration registry.

39. (Previously presented) The apparatus according to Claim 28, wherein the Internet-located service registry comprises a universal description, discovery, and integration registry.